2. (Amended) The hybrid synchronous motor according to claim 1, further comprising a plurality of the stator assemblies and wherein the toroidal coil is formed around all of stator assemblies simultaneously, and wherein the common toroidal coil is wound around or assembled from U-shaped copper parts.

3. (Amended) The hybrid synchronous motor according to claim 1, wherein the rotor includes one pair of inner and outer rotor assemblies that is mounted to each stator assembly, each rotor assembly including two coaxially displaced rotor rings, each rotor ring being formed with rotor poles in the form of cogs which are equally spaced along a circumferential direction, so that the poles of each of the rotor rings are angularly shifted for one half of a rotor pole division relative to the poles of the other corresponding one of the rotor rings, respectively.

4. (Amended) The hybrid synchronous motor according to claim 3, wherein either one axially magnetized disk is inserted between the cogged stator rings of each assembly, or two such disks are inserted between the adjacent cogged rotor rings, and wherein

the disk or the disks are producing transverse magnetic flux in the inner and in the outer air gaps between the rotor and stator.

5. (Amended) The hybrid synchronous motor according to claim 3, wherein four sets of rotor poles have the same number of poles, and four sets of stator poles also have the same number of poles, and the number of rotor poles differs from the number of stator poles if the stator poles are equally spaced along a circumferential direction.

6. (Amended) The hybrid synchronous motor according to claim 1, wherein the gaps between the rotor and the stator are filled with a liquid, which improves heat transport from a motor interior and reduces mechanical vibrations.

Please add the following new claim 7:

7. (New) The hybrid synchronous motor according to claim 6, wherein the liquid is a ferromagnetic liquid.